

CLAIMS

1. Luminous panel, characterised by the fact that it comprises:
 - at least one plate (10), formed from a material capable of transmitting, at least partially, light emitted in the visible spectrum, said plate comprising two opposite planar faces, a first face (11) and a second face (12), connected at their periphery by an edge face (13), said first face (11) constituting the display face of the panel,
 - a reflecting surface (14) disposed facing the second planar face (12) at a non-zero distance so as to form, between itself and this said second planar face, a layer (15) of a transparent medium with an optical index lower than that of the material constituting said plate (10), and
 - light source means (16) capable of emitting light beams (17), at least in the visible spectrum, said light source means being substantially situated at the periphery of said plate (10) and of said reflecting surface (14) and designed to direct a first portion (18) of the light beams (17) towards said edge face (13) and a second portion (19) of said light beams into said layer (15), so that at least a portion of this second portion (19) of light beams is reflected on said reflecting surface (14) to be sent back towards said second planar face (12) of said plate (10).
2. Luminous panel according to claim 1, characterised by the fact that said layer (15) of a transparent medium with an optical index lower than that of the material constituting said plate (10) is a layer of air.
3. Panel according to one of claims 1 and 2, characterised by the fact

that the light source means (16), capable of emitting light beams (17), are constituted by at least two light source sub-assemblies (21, 22), each of these sub-assemblies being respectively situated facing the edge face (13) of the plate (10) and facing the edge (23) of the layer (15), so that the beams emitted by these two light source sub-assemblies constitute the two said first and second portions of light beams (18, 19) respectively.

4. Panel according to one of claims 1 to 3, characterised by the fact that said reflecting surface (14) is of the granular type in order to encourage at least one of the two following optical phenomena: reflection and diffusion.

5. Panel according to one of claims 1 to 4, characterised by the fact that it comprises, in addition, a layer (25) for distributing the light being propagated in the plate (10).

6. Panel according to claim 5, characterised by the fact that said light distribution layer (25) is in contact with the second planar face (12) of the plate (10).

7. Panel according to one of claims 1 to 6, characterised by the fact that said plate is constituted by a plate formed from at least one of the following materials: organic glass, PMMA.

8. Display screen of the video type making use of the luminous panel according to one of the preceding claims, characterised by the fact that it comprises:

- at least one plate (10), formed from a material capable of transmitting, at least partially, light emitted in the visible

spectrum, said plate comprising two opposite planar faces, a first face (11) and a second face (12), connected at their periphery by an edge face (13), said first face (11) constituting the display face of the panel,

- a reflecting surface (14) disposed facing the second planar face (12) at a non-zero distance so as to form, between itself and this said second planar face, a layer (15) of a transparent medium with an optical index lower than that of the material constituting said plate (10),
- light source means (16) capable of emitting light beams (17), at least in the visible spectrum, said light source means being substantially situated at the periphery of said plate (10) and of said reflecting surface (14) and designed to direct a first portion (18) of the light beams (17) towards said edge face (13) and a second portion (19) of said light beams into said layer (15), so that at least a portion of this second portion (19) of light beams is reflected on said reflecting surface (14) to be sent back towards said second planar face (12) of said plate (10), and
- an active matrix (40) situated facing the first face (11) of said plate (10).